

V	Final Report
	Revised Report

Report Date: 31-Aug-18 18:15

Laboratory Report SC49723

Gulf Oil L.P. 281 Eastern Avenue Chelsea, MA 02150 Attn: Andrew P. Adams

Project: Gulf Terminal - Chelsea, MA

Project #: [none]

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110 Connecticut # PH-0777 Florida # E87936 Maine # MA138 New Hampshire # 2972/2538 New Jersey # MA011 New York # 11393 Pennsylvania # 68-04426/68-02924 Rhode Island # LAO00348 USDA # P330-15-00375 Vermont # VT-11393



Authorized by:

Christina White Technical Director

Christina a. White

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 8 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC49723

Project: Gulf Terminal - Chelsea, MA

Project Number: [none]

Laboratory IDClient Sample IDMatrixDate SampledDate ReceivedSC49723-01Outfall 003Surface Water20-Aug-18 08:5022-Aug-18 14:20

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 0.7 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of ± 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

31-Aug-18 18:15 Page 3 of 8

Sample Acceptance Check Form

Client:

Gulf Oil L.P.

Project:	Gulf Terminal - Chelsea, MA / [none]			
Work Order:	SC49723			
Sample(s) received	on: 8/22/2018			
The following outl	ines the condition of samples for the attached Chain of Custody upon receipt.			
		Yes	<u>No</u>	<u>N/A</u>
Were custo	ody seals present?		\checkmark	
Were custo	ody seals intact?			\checkmark
Were samp	eles received at a temperature of $\leq 6^{\circ}$ C?	\checkmark		
Were samp	oles refrigerated upon transfer to laboratory representative?	\checkmark		
Were samp	ole containers received intact?	\checkmark		
	oles properly labeled (labels affixed to sample containers and include sample ID, site and/or project number and the collection date)?			
Were samp	oles accompanied by a Chain of Custody document?	\checkmark		
include sar	n of Custody document include proper, full, and complete documentation, which shall mple ID, site location, and/or project number, date and time of collection, collector's name, on type, sample matrix and any special remarks concerning the sample?			
Did sample	e container labels agree with Chain of Custody document?	\checkmark		
Were samp	oles received within method-specific holding times?	\checkmark		

Summary of Hits

Lab ID: SC49723-01 Client ID: Outfall 003

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Total Suspended Solids	13.8		1.0	mg/l	SM2540D (11)

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Outfall 003 6C49723-0				Client F [no	Project # one]		Matrix Surface Wa		ection Date 0-Aug-18 08			ceived Aug-18	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
								-					
Ceneral Ch	emistry Parameters											_	

31-Aug-18 18:15 Page 6 of 8

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<u>SM2540D (11)</u>										
Batch 1811702 - General Preparation										
Blank (1811702-BLK1)					Pre	epared: 24-Au	ug-18 An	alyzed: 29-A	ug-18	
Total Suspended Solids	< 0.5		mg/l	0.5						
LCS (1811702-BS1)					Pre	epared: 24-Au	ug-18 An	alyzed: 29-A	ug-18	
Total Suspended Solids	102		mg/l	10.0	100		102	90-110		

Notes and Definitions

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

<u>Laboratory Control Sample (LCS)</u>: A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

31-Aug-18 18:15 Page 8 of 8

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	8/22/18	8,-25-6	Date:											Matrix # of VO)A Vi			Со			Q	Wellerley MA	gowillia 08	The Oil	Page, of	HAIN OF CUSTODY RECORD		
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Intact Broken		il com	Accom. com		•		2 M	les i			e e			Iller II*. Iller IV* Other: State-specific reporting standards:	řed*	OQA*		MA DEP MCP CAM Report? Yes No	WAYUC Keporting Notes: * additional charges may appply			State: Nw	erminal	-	oval ushes ss otherwise instructed.		days .	

Special Handling:



Spectrum Analytical CHAIN OF CUSTODY RECORD Rush TAT - Date Needed: ☐ Standard TAT - 7 to 10 business days All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

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teport? Yes	Analysis		Containers	C ₀	WW=Waste Water		ter GW=Groundwater SW=Surface Water	DW=Drinking Water
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QA/QC Reporting Notes:	List Preservative Code below:	L		Acid	NaOH 6=Ascorbic Acid	4=HNO ₃ 5=NaOH 11= //	red 1=Na ₂ S2O ₃ 2=HCl 3=H ₂ SO ₄ 8=NaHSO ₄ 9=Deionized Water 10=H ₃ PO ₄	F=Field Filtered 7=CH3OH 8=N
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Condition upon receipt: Custody Seals:

☐ Intact ☐ Broken

☐ Ambient ☐ Iced

Batch Summary

<u>1811702</u>

<u>General Chemistry Parameters</u> 1811702-BLK1 1811702-BS1 SC49723-01 (Outfall 003)